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|-------------------------------|---------------------------|----------------------|---------------------|-----------------|--|
| 09/753,062                    | 12/28/2000                | Paul E. McKenney     | BEA9-2000-0013-US1  | 9320            |  |
| 30011 7                       | 590 06/09/2006            | 0 06/09/2006         |                     | EXAMINER        |  |
| LIEBERMAN & BRANDSDORFER, LLC |                           |                      | HUYNH, KIM T        |                 |  |
| 802 STILL CR<br>GAITHERSBU    | EEK LANE<br>JRG, MD 20878 |                      | ART UNIT            | PAPER NUMBER    |  |
|                               | ,                         |                      | 2112                |                 |  |

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**Technology Center 2100** 

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/753,062 Filing Date: December 28, 2000 Appellant(s): MCKENNEY ET AL.

Rochelle Lieberman, Esq. (Reg. No. 39,276) For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 23<sup>rd</sup> of March 2006.

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Art Unit: 2112

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings

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which will directly affect or be directly affected by or have a bearing on the Board's

decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection To Be Reviewed On Appeal.

The grounds of Rejection to be reviewed on appeal contained in the brief is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

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#### (8) Evidence Relied Upon

US 6,163,831 Kermani 12-2000

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Kermani (US Patent 6,163,831)

As per claims 1, 13 and 22, Kermani discloses a method for efficiently handling high contention locking in a multiprocessor computer system, comprising:

- organizing at least some of the processors(fig.9, 100-108, ie
  agents(processors) A and agents(processors) B) into a hierarchy;(col.4,
  lines 46-57, ie a priority level assigned to each of requesting agents)
- providing a lock selected from the group consisting of an interruptible
  lock, and a lock which waits using only local memory(fig.9, 200, shared
  memory); and (col.12, lines 1-15, ie arbiter 920 providing a lock selected
  from access requesting of agents 100-108)
- processing the lock responsive to the hierarchy. (col.12, lines 16-37, arbiter arbitrates ownership of share memory 200 based on a priority established)

As per claims 2, 14, 25, Kermani discloses wherein the processing step conditionally acquires the lock. (col.11, lines 39-46)

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As per claims 3, 15, 26, Kermani discloses wherein the processing step returns a failure to grant the lock if the lock is not immediately available. (col.8, lines 1-15, ie not acknowledge signals implies returns a failure)

As per claims 4, 16, 27, Kermani discloses wherein the processing step unconditionally acquires the lock. (col.5, lines 37-49, wherein without requiring the winning implies unconditionally)

As per claims 5, 17, 28, Kermani discloses wherein the processing step spins on the lock until the lock is available. (col.8, lines 16-24)

As per claims 6, 18, Kermani discloses the method further comprising allowing system interrupts while spinning on the lock. (col.11, line 55-col.12, line 15)

As per claims 7, 19, 29, Kermani discloses wherein the processing step unconditionally releases the lock. (col.12, lines 43-49)

As per claim 8, Kermani discloses wherein the processing step the processors spin on private memory. (col.12, lines 27-37)

As per claim 9, Kermani discloses wherein the hierarchy includes a data structure having a bit mask indicating which processors of a group are waiting for the lock. (col.8, lines 16-24)

As per claim 10, Kermani discloses wherein the hierarchy includes a data structure having a bit mask indicating which groups of processors have processors waiting for the lock. (col.8, lines 1-15, ie agents group A/B)

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As per claims 11, 20, 30, Kermani discloses the method further comprising maintaining a release flag for a group of processors to prevent races between acquisition and release of the lock.(col.6, lines 17-30)

As per claims 12, 21, 31, Kermani discloses the method further comprising maintaining a handoff flag for a group of processors to grant the lock to a processor requesting an unconditional lock from a processor requesting a conditional lock. (col.6, lines 5-16)

As per claim 23, Kermani wherein the medium is a recordable data storage medium. (col.12, lines 27-37, ie encoder 190)

As per claim 24, Kermani discloses wherein the medium is a modulated carrier signal. (col.11, lines 39-46, wherein signals to/from system have been modulated/demodulated as for communicating within system)

#### (10) Response to Argument

Appellants' brief filed on 3/23/06 have been fully considered but does not place the application in condition for allowance.

a. Appellants argue that the processors or agents of Kermani are not organized in a hierarchy as claimed in independent claims 1, 13 and 22 by Appellants. A priority may be assigned within a hierarchical structure, however, the use of a hierarchical structure does not necessitate the assignment of a priority to any element within the hierarchical structure. Examiner respectfully disagrees. The Examiner agrees with Appellants' definitions of a hierarchy and a priority structures as presented. However, in

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the case of a single element per level, the hierarchy structure and the priority structure

will be the same. Therefore, priority can be a type of hierarchy. The claimed invention

does not detail the hierarchy structure. Thus, the prior art teaches the invention as

claimed and the claims do not distinguish over the prior art as applied and Appellants'

position is not seen to be persuasive towards patentability.

(11) Related proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the Examiner in the

Related Appeals and Interferences section of this Examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully Submitted,

Cel/ June 5, 2006 Kim T. Huynh Patent Examienr AU 2112

Conferees:

SUPERVISORY PATENT EXAMINER

SUPERVISORY PATENT EXAMINER **TECHNOLOGY CENTER 2100**